(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 2 June 2005 (02.06.2005)

(10) International Publication Number WO 2005/050182 A1

(51) International Patent Classification7:

G01N 21/64,

(74) Agent: GRIFFITH HACK; Level 6/256 Adelaide Ter-

(21) International Application Number:

PCT/AU2004/001598

(22) International Filing Date:

18 November 2004 (18.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2003906398

19 November 2003 (19.11.2003)

(71) Applicant (for all designated States except US): THE UNIVERSITY OF WESTERN AUSTRALIA? [AU/AU]; NEDLANDS, Western Australia 6009 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SCHMIDT, Ulrich? [DE/AU]; 150C Cambridge Street, West Leederville, Western Australia 6007 (AU). EIDNE, Karen? [AU/AU]; 3 Stanhope Street, Cottesloe, Western Australia 6011 (AU). KROEGER, Karen? [AU/AU]; 51 Warner Drive, Padbury, Western Australia 6025 (AU).

race, Perth, Western Australia 6000 (AU).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

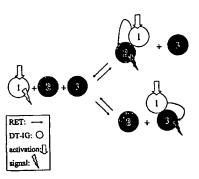
Published:

ZW.

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RESONANCE ENERGY TRANSFER ASSAY SYSTEM FOR MULTI-COMPONENT DETECTION



(57) Abstract: The present invention relates to a system for detecting molecular associations. In particular, the present invention relates to a multi-component detection system comprising: i). a first agent comprising a first interacting group coupled directly or indirectly to a first tag, which first tag emits light of a first wavelength upon activation by a substrate or energy source, which produces a first activated tag; ii). a second agent comprising a second interacting group coupled directly or indirectly to a second tag, which second tag can accept the energy from the first tag when the first and second interacting groups are associated and an appropriate substrate or energy source for the first tag is present thereby producing a second activated tag that emits light of a second wavelength; iii). a third agent comprising a third interacting group coupled directly or indirectly to a third tag that can accept the energy from the first activated tag when the first and third interacting groups are associated and an appropriate substrate or energy source for the first tag is present to produce a third activated tag that emits light of a third wavelength; iv). an appropriate substrate or energy source to activate the first tag, and v). a means of detecting said emitted light.

